Supporting Information

Anthony *et al.* 10.1073/pnas.0804478105

Table S1. ANOVA results for effects of CO_2 dosing and warming

		CO_2		T		$CO_2 \times T$		Error
Species	Response variable	*Fs*	*P*	*Fs*	*P*	*Fs*	*P*	df
CCA	Bleaching	48.4	< **0.001**	5.50	**0.021**	1.91	0.153	102
	Productivity	120.8	< **0.001**	14.6	**0.001**	8.88	**0.001**	84
	Calcification*	35.8	< **0.001**	1.19	0.278	3.25	**0.043**	89
Acropora	Bleaching	63.9	< **0.001**	1.70	0.195	1.45	0.237	147
	Productivity[†,b]	124.5	< **0.001**	118.8	< **0.001**	27.82	< **0.001**	84
	Calcification	12.3	< **0.001**	8.11	**0.005**	1.14	0.321	150
Porites	Bleaching	6.23	**0.003**	7.07	**0.009**	0.84	0.433	85
	Productivity	74.9	< **0.001**	32.9	< **0.001**	29.5	< **0.001**	84
	Calcification	5.53	**0.005**	0.17	0.685	1.47	0.234	106

Initial analyses demonstrated that the effect of tanks was nonsignificant for all response variables. Tanks were then pooled in subsequent analyses, and specimens were used as replicates (28). Degrees of freedom associated with CO_2, temperature (T), and the $CO_2 \times T$ interaction were 2, 1, and 2, respectively. Data conformed to variance homogeneity and normality assumptions for all analyses, except for bleaching in *Porites*. *P*-values shown in boldface type are significant at the 5% level. Due to significant interaction terms, *t* tests were used to analyze within-treatment effects.

*Warming enhanced the dissolution rate ($P < 0.05$) within the high-CO_2 dosing regime.

[†]Warming strongly enhanced productivity ($P < 0.001$) within the intermediate-CO_2 dosing regime.